CLAIMS

What is claimed is:

1. A method for operating an automatic storage and retrieval system, wherein the automatic storage and retrieval system (AS/RS) is used to connect a user's computer device to an AS/RS programmable logic controller (PLC) through a communication network, and has a first database for storing a plurality of storage bin data each including a material, a corresponding storage bin for storing the material, controlling authorization for identifying the storage bin and an identification number corresponding to the storage bin; the method comprising the steps of:

(1) displaying via the AS/RS a daily required material report in a browser of the user's computer device after a user loginning the AS/RS through an identification number provided for the user, and receiving a material selected from the material report by the user;

(2) searching via the AS/RS in the first database for a storage bin datum relating to the material selected by the user, and determine if the identification number of the user is identical to that of the searched datum, wherein if the user does not match the searched datum in identification number, then step (3) is followed; or else, a corresponding storage bin for the selected material is obtained from the searched datum, and then step (4) is followed;

(3) sending via the AS/RS a message showing no authorization for handling the selected material to the user's computer device, and returning to the step (1); and

(4) informing the AS/RS PLC to operate the obtained storage bin for storing or retrieving the selected material.

2. The method of claim 1, after the step (4), further comprising a step (5) of storing data relating to activities performed by the user loginning the AS/RS in a second database so as to allow operation of the AS/RS to be monitored in real time.

3. The method of claim 2, wherein the second database stores a plurality of records, which each includes the identification number of the user, login time, the selected material or the operated storage bin.
4. The method of claim 1, wherein the user's computer device is a computer.
5. The method of claim 4, wherein the computer includes a browser for allowing the user to input a material to be selected thereto and sending a request to the AS/RS for material storage or retrieval.
6. The method of claim 1, wherein the automatic storage and retrieval system comprises:

the first database; and

a database server for executing the step (1) of receiving the material selected by the user, and for executing the step (3) of sending the message or the step (4) of storing or retrieving the selected material according to the determination in the step (2).

7. The method of claim 3, wherein the automatic storage and retrieval system comprises:

the first database;

the second database; and

a database server for executing the step (1) of receiving the material selected by the user, and for executing the step (3) of sending the message or the step (4) of storing or retrieving the selected material according to the determination in the step (2), as well as for executing the step (5) of storing the records.

8. The method of claim 6, wherein the database server employs structured query language (SQL) statements for processing interaction between the first database and the user.
9. The method of claim 7, wherein the database server employs SQL statements for processing interaction between the user and the first and second databases.

10. The method of claim 7, wherein the communication network is internet or intranet.

11. An automatic storage and retrieval system (AS/RS) for use to connect a user's computer device through a communication network to an AS/RS programmable logic controller (PLC), wherein a user is provided with an identification number for loginning the AS/RS, and a daily required material report is displayed in the user's computer device for allowing the user to select a material from the material report, so as to control the AS/RS PLC to store or retrieve the selected material; the AS/RS comprising:

a first database for storing a plurality of storage bin data, each including a material, a corresponding storage bin for the material, controlling authorization for identifying the storage bin and an corresponding identification number for the storage bin; and

a database server for processing interaction between the first database and the user, so as to search in the first database for a storage bin datum corresponding to the material selected by the user, and determine if the identification number of the user is identical to that of the searched datum, wherein if the user matches the searched datum in identification number, then the AS/RS automatically informs the AS/RS PLC to operate a corresponding storage bin obtained from the searched datum for storing or retrieving the selected material; if the user identity does not match the searched datum in identification number, then the AS/RS inhibits the material storage or retrieval.

12. The AS/RS of claim 11, wherein the database server employs SQL statements for processing interaction between the user and the first and second databases.

13. The AS/RS of claim 11, further comprising a second database for storing records relating to activities performed by the user loginning the AS/RS.

14. The AS/RS of claim 13, wherein the database server employs SQL statements for

processing interaction between the user and the first and second databases.

15. The AS/RS of claim 13, wherein the records each includes the identification number of the user, login time, the selected material or the operated storage bin.

16. The AS/RS of claim 11, wherein the user's computer device is a computer.

17. The AS/RS of claim 16, wherein the computer includes a browser for allowing the user to input a material to be selected thereto and sending a request to the AS/RS for material storage or retrieval.

18. The AS/RS of claim 11, wherein the communication network is internet or intranet.